



Nonproliferation and Arms Control
Technology Working Group

R&D Database Focus Group

1996 Annual Report

Co-chaired by:

U.S. Arms Control and Disarmament Agency and Defense Technical Information Center

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BACKGROUND

In response to the growing need to coordinate research and development in the areas of nonproliferation and arms control, in November 1994 President Clinton directed the establishment of the Nonproliferation and Arms Control Technology Working Group (NPAC TWG). One of the focus groups established to assist it in executing its key functions was that of Proliferation Modeling. The Proliferation Modeling Focus Group (PMFG) charter was to identify and facilitate interagency synergism in the development of models and other analytical tools for proliferation analysis. The focus group consisted of interagency participants from the Department of Defense (DoD), the Department of Energy (DOE), and the Intelligence Community (IC).

In response to guidance from the NPAC TWG, the PMFG formulated objectives and terms of reference from which to conduct its activities. A major recommendation of this group in its report last year was that NPAC TWG needed to establish a separate focus group to develop and implement communications and data sharing within the larger NPAC TWG and among its various focus groups. The need was recognized for communicating and data sharing at both classified and unclassified levels. In response to this recommendation, the NPAC TWG established the Research and Development Database Focus Group.

Terms of Reference for the R&D Database Focus Group

The most immediate requirement was to establish a presence on various communication networks that would allow the capability to disseminate information to NPAC TWG members and focus groups, enable information sharing, and satisfy security requirements for protection of classified information, while allowing access to as much information as possible to the general public. Due to security requirements, a multitude of hardware and software used and network access by member agencies, in addition to the requirement for future flexibility and compatibility of networks, it was decided to use a three-tier approach on three parallel communications

networks: the Internet's World Wide Web, Secret Internet Protocol Router Network's (SIPRNET) INTELINK-S, and Joint Worldwide Intelligence Communications System's (JWICS) INTELINK. Since all three networks at all classification levels use WEB browsers (Mosaic, Netscape, Microsoft's Navigator, and others) and Internet tools to search and display data, and all networks are or could be made available to all members, it was propitious to use them as the infrastructure for NPAC TWG's information sharing requirements.

Where We Are Today

INTELINK presently has a homepage for NPAC TWG that is primarily used for dissemination of annual reports. It also provides a method for displaying links to other agencies (i.e., the Nonproliferation Center and National Labs) that maintain data of interest to group members. INTELINK is capable of handling Top Secret data requirements.

SIPRNET's INTELINK-S network will likely become the primary network for data sharing and communications between members and focus groups since it can handle up to Secret information, and may be more readily accessible to NPAC TWG members and focus groups. NPAC TWG has obtained approval for installation of a server on the SIPRNET and is in the process of choosing an operating location and working out the details of implementation and maintenance of a homepage on INTELINK-S. IOC is expected late in 1996.

The Defense Technical Information Center (DTIC) recently established an NPAC TWG homepage on the Internet which provides access to the general public, and is working on adding enhancements to allow access to unclassified but limited information for NPAC TWG members only. The Internet homepage will allow several access views to the public including industry and academia as well as access to unclassified but limited or restricted information for NPAC TWG members. It is extremely important to allow contractors, academia, and independents an ability to contribute and share ideas and data to maximize and leverage R&D at all levels.

Where We Are Headed in the Future

During the 1997 Fiscal Year, we will implement an NPAC TWG homepage on INTELINK-S, and will continue to enhance and expand information sharing and dissemination using other existing networks. Classified NPAC TWG and Focus Group annual reports will be posted when finalized on both classified networks. Where possible, sanitized versions will be available from the Internet, within a limited-access area for members. Major emphasis will focus on

communication among all focus groups to determine their information requirements and capabilities and increased information sharing between NPAC TWG members.

This Focus Group plans to prototype a system permitting multiple database searching by member agencies, transparent to the user making the request. Major challenges will be identifying key systems, persuading agencies to provide access to their data from a common network, and in defining, identifying, and implementing a commercial off-the-shelf (COTS) or government off-the-shelf (GOTS) technological solution to create a user friendly interface for an audience with minimal computer and database search and retrieval expertise.

Developing and maintaining the NPAC TWG homepage on the Internet will be critical to expanding the reach for information to the largest possible audience. Offering an unclassified means to communicate worldwide is essential for identifying all-encompassing R&D work done by all communities: government or non-government, contractors or independents, academia or others. DTIC will also implement a collaboration tool allowing users to post and receive information via the NPAC TWG homepage, similar to a bulletin board. Also, members of the NPAC TWG and its focus groups will be able to access unclassified but controlled data or data restricted from public access. We will work with the focus groups to encourage them to present sanitized versions of their information products to share across as wide an audience as feasible. Future enhancements that will be tested over the next year include: video conferencing and viewing of participant-provided images and motion picture files of projects and/or concepts.

Over the next year the R&D Database Focus Group will drastically change its' active membership and meeting schedule. Close coordination and cooperation will be required with each organization providing database access, with periodic meetings to review implementation, maintenance, and upgrades to software. The focus will be to utilize COTS or GOTS software, compatible with select database developers' systems. While initial database access testbed efforts will focus primarily using INTELINK-S as the NPAC TWG network infrastructure, we will continue to work aggressively to implement easy access to identified collections on the other networks.

Implementation Plans for the R&D Database Focus Group

Focus group co-chairs ACDA and DTIC will continue to establish NPAC TWG homepages on the three networks mentioned above, including upgrades and enhancements. Once these efforts are completed during the first half of FY 97, we envision transforming the focus group into a much broader group of members leveraging expertise and knowledge from the other TWG focus

groups. We will survey these communities to determine information capabilities and requirements and to encourage input from representatives of focus groups either by e-mailing comments and suggestions or through meetings for the purpose of implementing a prototype information sharing platform across agencies and focus groups.

Following is a summary of planned activities:

System	Capabilities	Implementation Timeline
Member Survey	To identify information requirements and capabilities	Nov-Dec 1996
Internet Page	Unclassified homepage Links to other resources Collaboration tool Limited access area for members	complete (Oct 1996) complete (Oct 1996) Oct-Dec 1996 Dec1996
INTELINK-S Page and Server	Secret homepage Database links to resources	IOC Dec1996 IOC Apr 1997
INTELINK Page	Top secret homepage	complete
Member Survey	To identify future enhancements to all networks	May-June 1997